Multimodal datasets: misogyny, pornography, and malignant stereotypes

Abstract

We have now entered the era of trillion parameter machine learning models trained on billion-sized datasets scraped from the internet. The rise of these gargantuan datasets has given rise to formidable bodies of critical work that has called for caution while generating these large datasets. These address concerns surrounding the dubious curation practices used to generate these datasets, the sordid quality of alt-text data available on the world wide web, the problematic content of the CommonCrawl dataset often used as a source for training large language models, and the entrenched biases in large-scale visio-linguistic models (such as OpenAI's CLIP model) trained on opaque datasets (WebImageText). In the backdrop of these specific calls of caution, we examine the recently released LAION-400M dataset, which is a CLIP-filtered dataset of Image-Alt-text pairs parsed from the Common-Crawl dataset. We found that the dataset contains, troublesome and explicit images and text pairs of rape, pornography, malign stereotypes, racist and ethnic slurs, and other extremely problematic content. We outline numerous implications, concerns and downstream harms regarding the current state of large scale datasets while raising open questions for various stakeholders including the AI community, regulators, policy makers and data subjects.